DOCUMENT RESUME

ED 306 639 EA 020 797

AUTHOR Ladd, Helen F.; Wilson, Julie Boatright
TITLE Who Supports Tax Limitations: Evidence from Massachusetts' Proposition 2 1/2.
SPONS AGENCY National Inst. of Education (ED), Washington, DC.
PUB DATE Jan 82
GRANT NIE-G-81-0006
NOTE 33p.; Part of a larger study receiving supplemental funds from the Lincoln Institute of Land Policy, Cambridge, MA. For related documents, see EA 020 795-798.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Community Attitudes; *Community Characteristics; Community Support; Educational Finance; Elementary Secondary Education; Heads of Households; *Property Taxes; Public Policy; School Support; *Surveys; Tables (Data); Tax Allocation; *Tax Effort; Tax Rates
IDENTIFIERS *Massachusetts; *Proposition Two and One Half (Massachusetts)

ABSTRACT

This paper focuses on the characteristics of Massachusetts voters who support Proposition 2 1/2, a stringent property tax limitation measure. Section I uses cross-tabular analysis to examine variations in support for the tax limitation measure across a number of demographic, household, and municipal characteristics, as well as attitudinal dimensions. Section II employs multivariate analysis to assess the impact of each of these characteristics on voting behavior, controlling for all other variables. The final section summarizes the Massachusetts findings and compares them to the results of tax limitation studies in California and Michigan. Overall, this study clearly indicated that household heads voted in their apparent economic self-interest and that community characteristics influenced the vote. Appended are four references and information concerning the statistical significance of percentage differences. (SI)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED306639

WHO SUPPORTS TAX LIMITATIONS: EVIDENCE FROM MASSACHUSETTS' PROPOSITION 2½

Helen F. Ladd
and
Julie Boatright Wilson

Program in City and Regional Planning
John F. Kennedy School of Government
Harvard University

January 1982

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

This paper is part of a larger study funded by the National Institute of Education, grant no. NIE-G-81-0006, with supplemental funds from the Lincoln Institute of Land Policy, Cambridge, Massachusetts. The authors are grateful to Claire Christopherson for her expert computer programming.

This paper is also available from the Joint Center for Urban Studies of MIT and Harvard University as Joint Center Working Paper no. 75.

EA020797

BEST COPY AVAILABLE

WHO SUPPORTS TAX LIMITATIONS: EVIDENCE FROM MASSACHUSETTS' PROPOSITION 2 1/2

In November 1980, Massachusetts voters overwhelmingly passed Proposition 2 1/2, a stringent property tax limitation measure. Proposition 2 1/2's success at the polls raises a number of questions about support for tax limitation: Did the election represent a revolt of the "haves," frustrated over subsidizing the "have-nots"? Were those most likely to realize tax reductions or those least in need of public services more likely to support the measure? Or did the election represent an ideological split in the electorate, reflecting voters' fundamental beliefs about the appropriate role of government?

Data to explore these questions were collected from half-hour telephone interviews with 1,561 Massachusetts household heads, conducted during the two weeks immediately following the election. An equal number of male and female respondents were selected randomly from 58 communities that are representative of all cities and towns in the state.[1]

This paper focuses on the characteristics of voters who supported Proposition 2 1/2. Section I uses cross-tabular analysis to examine variation in support for the tax limitation measure across a number of demographic, household and municipal characteristics, as well as attitudinal dimensions. Section II then employs multivariate analysis to assess the impact of each of these characteristics on voting behavior, controlling for all other variables. The final section summarizes the Massachusetts findings and compares them to the results of tax limitation studies in California and Michigan.

---

[1] For a more detailed description of the survey and the sampling plan, see Appendices A, B, and C of Helen F. Ladd and Julie Boatright Wilson, "Proposition 2 1/2: Explaining the Vote."

I. SELF-INTEREST VS. ROLE OF GOVERNMENT

Self-Interest Hypothesis

Expectations of personal economic benefits may have provided the principal motivation for supporting Proposition 2 1/2. This hypothesis has the straightforward implication that those who expected to receive the greatest financial benefits from the implementation of Proposition 2 1/2 would be the most likely to vote for the measure. Identifying the gainers, however, is difficult because of the open-ended nature of the proposition; different people held differing expectations about what the tax limitation measure would accomplish.

The major impact of Proposition 2 1/2 was to limit property taxes to 2 1/2 percent of fair market value, with high tax rate communities required to reduce tax revenues by 15 percent per year until they reach the maximum allowable level. Additional provisions reduced auto excise taxes, allowed renters an income tax deduction, ended binding arbitration for police and fire personnel, limited the fiscal autonomy of school committees, and prohibited the state from mandating programs without providing funds. At the time of the election, Massachusetts municipalities anticipated losing close to $500 million in revenues if the measure were passed. The initiative petition, however, provided no explicit provision for new state aid or state assumption of local expenditure responsibilities, and did not offer any indication of which local services might be reduced.

In the face of this ambiguity, the extent to which an individual voter expected to benefit from the passage of Proposition 2 1/2 depended on individual preferences for changes in taxes and service levels, and expectations of how the measure would affect taxes, services, intergovernmental aid and government operations. Views on these issues are likely to vary by the respondent's demographic characteristics and the tax and revenue characteristics of the particular city or town where he or she lives.

Respondents preferring more rather than fewer local services should be more likely to vote "no" on Proposition 2 1/2. Preferences for maintaining or increasing public service levels are likely to be greatest among those who are most dependent on local public services (public service users, households with school-age children, low-income voters); those who anticipate using local public services in the future (childless young adults, households with pre-school children); those who are least able to move to communities where higher service levels are available (non-whites, low-income households); those who are least able to purchase alternatives to public services in the private sector (low-income households); those who believe they pay little for local public services (renters, owners with low tax shares); those who are primarily concerned with the day-to-day activities of household members, particularly children (women); those who have historically been committed to public services or whose occupation involves servicing needs (Jews, respondents in households headed by professionals); and those whose household includes a worker employed by local or state government.

Support for Proposition 2 1/2 is likely to increase with the size of expected tax reductions. Because homeowners pay property taxes directly, they are likely to expect greater tax savings than renters.[1] Furthermore, tax savings should increase with the homeowner's share of the local tax burden. In light of Proposition 2 1/2's specific provisions, expectations of tax reductions are likely to vary dramatically across communities depending on existing property tax rates and estimated first-year revenue losses. At the same time, however, large tax savings may imply large service reductions, making

---

[1]Renters may have been unclear about how Proposition 2 1/2 would affect their taxes and rents. On the one hand, tenants had no guarantee that landlords would pass tax reductions along in the form of lower rents; on the other hand, Proposition 2 1/2 provides some direct tax relief to tenants by allowing them to deduct half their rent from their state income tax returns. Tenants may not have expected these tax savings to be large or may have expected the measure to lead to simultaneous increases in state income or sales taxes.

the link between first-year revenue losses or the existing tax rate and support for Proposition 2 1/2 less clear cut. To the extent that expectations of tax reductions outweigh concern over service reductions, support for the measure may increase as first year tax savings and pre-Proposition 2 1/2 tax rates increase. To the extent that concern over service reductions is paramount, the opposite relationship should be observed.

Support for Proposition 2 1/2 should also increase with respondents' expectations that the measure would encourage more efficient government operations. Because voters with less education are less likely to be aware of the complexities of fiscal issues, those with the least education are more likely to have expected Proposition 2 1/2 to provide tax savings without offsetting service cuts. A respondent's education level is therefore likely to be inversely correlated with support for Proposition 2 1/2. Respondents who are most concerned with management issues and are willing to tolerate service reductions either to improve the efficiency or to limit the scope of local government operations also should be more likely than others to support Proposition 2 1/2. Thus, respondents in households headed by managers may be more likely to vote "yes" on the tax limitation measure than those in households headed by blue-collar workers or professionals.

In sum, the self-interest hypothesis implies that those who were likely to benefit most from the passage of Proposition 2 1/2--i.e., homeowners, less educated respondents, high income households, older childless households, those in households headed by managers or with no member employed by local or state government, men, whites, non-Jews, and non-service users--would be more likely than others to support the measure. The effect of pre-Proposition 2 1/2 property tax rate levels on voting behavior is ambiguous; high tax rates imply larger tax savings but also larger potential service reductions.

Based on data gathered in interviews with Massachusetts household heads, Table I shows the proportions of voters who voted "yes" on

Proposition 2 1/2 by various demographic and community characteristics. In almost all cases, the results are consistent with the view that respondents tend to vote in their own economic self-interest.[1] Men, whites and non-Jews were significantly more likely than women, non-whites and Jews to support the tax limitation measure. Support increased with the age of the household head. The elderly, for example, were 23 percentage points more likely than young households with no children to support the measure. In addition, support for Proposition 2 1/2 was substantially stronger among those with at least a college degree than among those not completing college. Across occupation groups, management households were most likely to support the measure, followed closely by respondents in pink-collar and service worker households; professional households were least likely to support the measure. Support was weakest among respondents in households having a worker employed in the local government or school system, somewhat stronger in households having a state government employee, and strongest in households having no state or local public sector employee. The proportion of "yes" voters on Proposition 2 1/2 also tended to increase with household income, rising dramatically at the $10,000 level.

Renters, particularly those who had never owned and had no immediate plans to own homes, were significantly less likely than homeowners to support Proposition 2 1/2. Among owners, support for the measure tended to increase as the respondent's local tax share increased, although not smoothly.

For all services except schools, users were less likely than non-users to support the tax limitation measure. The similarity of support between school users and non-users may reflect anticipated use of education services by young childless households or those with pre-school children. There is no evidence that those whose children attend private or parochial schools were more willing than others to support Proposition 2 1/2.

---

[1] The size of the differences required for statistical significance is provided in Appendix A.

Table I

SUPPORT FOR PROPOSITION 2 1/2
AMONG VARIOUS TYPES OF VOTERS

Demographic Characteristics	Percent who Voted "Yes" on Proposition 2 1/2	Number of Voters in Sample
Total	58.0%	1243
Sex		
Male	63.5	616
Female	52.6	627
Race		
Non-white	38.0	50
White	58.8	1193
Religion		
Catholic	61.2	605
Jewish	42.7	82
Protestant	60.0	360
Other, no religion	51.0	196
Stage in Lifecycle		
Young, no children	47.6	225
Children present, oldest <6	55.0	120
Children present, oldest 6-17	57.9	432
Older adults, no children	59.2	267
Elderly (60+) adults, no children	70.4	199
Education		
Less than high school	62.6	107
High school degree	65.5	386
Some college	60.2	287
College degree	51.8	275
Graduate school	43.1	160
Household Income		
Less than $10,000	46.7	107
$10,000 to <$20,000	60.3	368
$20,000 to <$30,000	56.0	375
$30,000 to <$50,000	61.7	313
$50,000 or more	68.3	60

Table I (continued)

SUPPORT FOR PROPOSITION 2 1/2
AMONG VARIOUS TYPES OF VOTERS

Demographic Characteristics	Percent who Voted "Yes" on Proposition 2 1/2	Number of Voters in Sample
Occupation of Household Head		
Professional	51.2%	322
Managerial	66.4	268
Clerical, sales	62.3	154
Blue collar	57.3	302
Service	61.4	70
Not reported, no occupation	52.0	127
Government Employee		
Educational employee	31.8	85
Local government employee[a]	29.2	106
State government employee[a]	44.4	45
No local or state employees in household	63.8	1007
Local Tax Share		
Owners: Less than 75% of community avg.	58.5	183
Owners: 75% to <100% of community avg.	67.0	221
Owners: 100% to <125% of community avg.	60.5	157
Owners: ≥125% of community avg.	69.8	202
Owners: Taxes not reported	55.3	85
Renters: Never owned, no plans to	38.6	158
Renters: Ever owned	50.0	122
Renters: Plan to own	52.3	86
Neither rent nor own	55.2	29

Table I (continued)

SUPPORT FOR PROPOSITION 2 1/2
AMONG VARIOUS TYPES OF VOTERS

Service Use and Community Characteristics	Percent who Voted "Yes" on Proposition 2 1/2	Number of Voters in Sample
SERVICE USE		
Public Elementary and High School Education		
Use	58.2%	411
Do not use	57.9	832
Private School		
Use	59.0	100
Do not use	57.9	1143
Human Services		
Use	52.6	190
Do not use	59.0	1053
Welfare		
Use	44.6	65
Do not use	58.7	1178
After School Programs or Recreation Facilities		
Use	53.0	783
Do not use	66.5	460
COMMUNITY CHARACTERISTICS		
Anticipated 1982 Revenue Loss		
Less than 10%	54.3	335
10% to 14.9%	59.0	385
15% or more	61.9	504
Pre-Proposition 2 1/2 Tax Rate		
less than 2.5%	53.8	160
2.5% to 3.9%	59.2	519
4.0% to 4.9%	63.3	270
5.0% or more	53.4	294

[a]"State government employee" includes county employees.

The proportion of respondents supporting the Proposition 2 1/2 increased systematically with the size of the first year revenue losses in the respondent's community, suggesting that anticipation of immediate tax reductions outweighed fear of service cuts. The pattern of support across tax rate categories was mixed, however, increasing as the tax rate rose to the five percent level and then decreasing. While respondents' anticipations of tax savings and efficiency gains thus seem to have outweighed concern over service reductions in low tax rate communities, concern over service cuts may have been particularly important to voters in communities facing several years of property tax reductions because of their high 1981 property tax rates.

Role of Government Hypothesis

An alternative hypothesis explaining support for Proposition 2 1/2 is that voters were motivated less by personal economic benefits than by more general attitudes about the role of government. Voters may even have voted against their particular self-interests because of fundamental beliefs about the government's responsibility for the welfare of individual citizens. This hypothesis implies that those who report being politically conservative, who believe the government should be less involved in helping people, or who believe that those currently dependent on the government could support themselves would be more likely than others to vote "yes" on Proposition 2 1/2.

The data presented in Table II are consistent with this hypothesis. More conservative respondents were more likely than liberal respondents to have voted for Proposition 2 1/2. Similarly, the more respondents feel "welfare recipients could find jobs if they really tried," the more they believe "people expect too many services from the government," and the less they believe "the government should make sure each family has enough to live on," the more likely they were to support the tax limitation measure. Massachusetts household heads thus apparently voted in a manner consistent with their fundamental beliefs about the appropriate responsibilities of government.

Table II

SUPPORT FOR PROPOSITION 2 1/2
BY POLITICAL ATTITUDES

	Percent Who Voted "Yes" on Proposition 2 1/2	Number of Voters in Sample
Total	**58.0%**	**1,243**
Self-proclaimed Political Ideology		
Very conservative	72.4	98
Fairly conservative	65.4	327
Middle-of-the-road	62.0	482
Fairly liberal	42.4	231
Very liberal	36.4	77
Welfare recipients could find jobs if they really tried		
Agree a lot	66.0	564
Agree a little	59.2	380
Disagree a little	44.4	180
Disagree a lot	28.4	95
People expect too many services from the government		
Agree a lot	71.2	466
Agree a little	55.7	405
Disagree a little	41.5	253
Disagree a lot	49.5	111
The government should make sure that each family has enough to live on		
Agree a lot	51.2	410
Agree a little	56.2	349
Disagree a little	58.9	265
Disagree a lot	68.4	196

To what extent are respondents' attitudes toward government merely rationalizations for behavior motivated primarily by economic self-interest? Is there any evidence that the attitudes toward government operate independently of economic self-interest? The following section addresses these and related questions.

II. MULTIVARIATE ANALYSIS

Table III reports the coefficients of a linear probability model in which the probabilty of a "yes" vote on Proposition 2 1/2 is a function of the fiscal characteristics of the respondent's community and the respondent's demographic characteristics and attitudes toward the role of government. Use of multivariate regression analysis isolates the effect of individual variables on the vote by controlling for all other variables. Each of the 50 variables in the equation, including those discussed above plus additional fiscal characteristics of the respondent's community, is hypothesized to influence voting behavior through its impact on respondents' preferences, perceptions or expectations about what Proposition 2 1/2 would accomplish.[1] The equation is based on the responses of 1,182 household heads for whom complete information is available.

Municipal Characteristics

The specific municipal characteristics included in the model attempt to capture variation in tax rates, in spending levels, and in the composition of the population and the tax base across communities. The equation shows that the higher the 1982 revenue loss, expressed as a proportion of 1981 revenues, the greater the probability that the respondent voted for Proposition 2 1/2. This relationship is

---

[1] In "Why Voters Support Tax Limitations: Evidence From Massachusetts' Proposition 2 1/2," Ladd and Wilson report the results of a behavioral model based on the same survey data that expresses voting behavior as a function of respondents' preferences, perceptions and expectations relating to several public policy issues. Each of the preferences, perceptions and expectations can, in turn, be expressed as a function of exogenous municipal, demographic, and attitudinal characteristics. The equation reported here may therefore be viewed as the reduced form of the complete structural model.

Table III

SOURCES OF SUPPORT FOR PROPOSITION 2 1/2: REDUCED FORM MODEL[a]

Variable[b]	Coefficient	t Value
COMMUNITY CHARACTERISTICS		
1982 Revenue Loss[c]	.65	1.87
Pre-Proposition 2 1/2 tax rate[d]		
Less than 2.5%	Base	--
2.5% to 3.9%	-.07	-1.10
4.0% to 4.9%	-.06	-0.86
5.0% or more	-.16	-2.02
Per Pupil Spending on Public Education[e]	-.00003	-0.60
Per Household Spending on Non-education Services[f]	.0001	1.98
% Households Below Poverty Level[g]	.66	0.79
% Household Headed by Non-whites[h]	-.94	-1.77
% Real Estate Revenue from Commercial and Industrial Properties[i]	.27	2.13
PERSONAL DEMOGRAPHIC AND HOUSEHOLD CHARACTERISTICS		
Sex		
Male	Base	--
Female	-.08	-2.88
Race		
Non-white	-.11	-1.44
White	Base	--
Religion		
Catholic	-.02	-0.67
Jewish	-.16	-2.75
Protestant	Base	--
Stage in Lifecycle		
Young, no children	-.001	-0.02
Children present, oldest <6	-.01	-0.14
Children present, oldest 6-17	-.01	-0.13
Older adults, no children	Base	--
Elderly (60+) adults, no children	.08	1.67

Table III (continued)

SOURCES OF SUPPORT FOR PROPOSITION 2 1/2: REDUCED FORM MODEL[a]

Variable[b]	Coefficient	t Value
Services Used		
Public elementary and secondary education	.01	0.17
Private schools	-.03	-0.52
Parks or after school programs	-.07	-2.23
Elderly, mental health or special education services	-.05	-1.18
Welfare	-.08	-1.25
Education of Respondent		
Less than high school	Base	--
High school degree	.01	0.25
Some college	-.05	-0.90
College degree	-.09	-1.46
Graduate school	-.13	-1.86
Household Income[j]		
Less than $10,000	-.08	-1.44
$10,000 to <$20,000	Base	--
$20,000 to <$30,000	-.04	-1.21
$30,000 to <$50,000	.04	1.07
$50,000 or more	.07	0.96
Occupation of Household Head[k]		
Professional	.03	0.75
Managerial	.09	2.11
Clerical, sales	.05	1.14
Blue-collar	Base	--
Service	.09	1.48
Not reported, no occupation	.01	0.28
Employer		
Local public schools	-.27	-4.95
Other local government	-.32	-6.46
State or county government	-.12	-1.61
Not local or state government	Base	--

Table III (continued)

SOURCES OF SUPPORT FOR PROPOSITION 2 1/2: REDUCED FORM MODEL[a]

Variable[b]	Coefficient	t Value
Local Tax Share		
Homeowners		
Less than 75% of community avg.	Base	--
75% to <100% of community avg.	.07	1.52
100% to <125% of community avg.	-.01	-0.12
≥125% of community avg.	.07	1.40
Taxes not reported	-.02	-0.30
Renters		
Never owned, no plans to	-.14	-2.52
Ever owned	-.01	-0.17
Plan to own in next 5 years	-.07	-1.08
Neither rent nor own	-.07	-0.66
ATTITUDES AND IDEOLOGY		
Political Ideology[l]		
Conservative	.01	0.18
Middle of the road	Base	--
Liberal	-.11	-2.95
Attitude to welfare recipients		
Believe welfare recipients could find jobs if they really tried	.12	3.52
Believe welfare recipients could not find jobs if they really tried	Base	--
Government's role vis-a-vis individuals[m]		
Individuals should rely less on government	.10	3.42
Government should help individuals	Base	--

[a]Based on 1,182 respondents for whom complete information was available. Estimated using ordinary least squares. The dependent variable takes on the value of 1 for a "yes" vote. The R^2 is .21.

[b]Variables enter the equation as continuous linear variables and binary 0-1 variables.

[c]Anticipated 1982 revenue loss, including both property taxes and auto excise taxes, as a proportion of all 1981 revenues in respondent's city or town.

[d]Full value tax rates in 1981 as estimated by the Massachusetts Department of Revenue.

Table III (continued)

[e] 1981 operating expenditures of education per public school student in respondent's city or town.

[f] 1981 expenditures (minus pension costs, debt service and operating expenditures for education) per household in respondent's city or town.

[g] Percentage of households in respondent's city or town with incomes below the poverty level.

[h] Percentage of residents in respondent's city or town who are not white.

[i] Assessed value of commercial and industrial property as a proportion of total assessed valuation in the respondent's city or town.

[j] Missing income data were estimated using a multivariate procedure described in Appendix C of Helen F. Ladd and Julie Boatright Wilson, Tax Limitations in Massachusetts.

[k] Household head is defined as the male in joint households and the respondent in single-adult households. Research suggests that in joint households, status and economic situation are more likely to be defined by the male's occupation than the female's.

[l] Respondent's political self description recorded on a five-point scale in which very conservative = 1, fairly conservative = 2, middle of the road = 3, fairly liberal = 4, and very liberal = 5.

[m] Dummy variable formed from two attitude statements: "People expect too many services from the government," and "The government should make sure that each family has enough to live on." Scores on the latter statement were reversed to make it consistent with the first statement. All attitude items were scored on a four-point scale: disagree a lot = 1, disagree a little = 2, agree a little = 3, agree a lot = 4. Respondents believing the government should have a more restrictive role, those with mean scores greater than 2.5, were assigned a value of 1.

statistically significant and suggests that expectations of immediate tax savings outweighed concerns about possible service losses. The higher the local pre-Proposition 2 1/2 tax rate, however, the more likely the respondent was to vote "no." Although not all the community tax rate dummy variables are statistically significant, opposition tends to increase with tax rates, suggesting that concerns about long-term service reductions were more important to voters than the expectation of long-term tax savings. This differs somewhat from the cross tabular analysis which showed that support increased up to a tax rate of 5.0 percent, and then declined.

The model includes two local spending variables: per pupil spending on education services and per household spending on non-education services. Although both measures are only crude proxies for local service levels, they do capture variation in the costs of producing services as well as variation in the quantity and quality of services delivered. The data in Table III indicate that while the level of per pupil education spending had little or no influence on the vote, the coefficient for non-school spending is positive and statistically significant. This result implies that respondents in communities with high non-school spending per household were more likely to support Proposition 2 1/2 than those in communities with low spending levels. While these findings suggest that people were basically satisfied with pre-limitation levels of school spending, respondents in communities with high non-school spending apparently preferred lower levels, perhaps because of beliefs that such expenditures could be cut without reducing service levels.

To measure the composition of the local population, the model includes the proportion of households in the community below the poverty level and the proportion of households headed by a non-white. Both variables account for variations across communities in service needs; the former also reflects variation in ability to pay. The equation shows that the proportion of poor households in a community has little or no effect on the Proposition 2 1/2 vote. In contrast, as the proportion of non-white residents increases, support for

Proposition 2 1/2 decreases.[1] This finding apparently reflects a willingness to use the public sector to aid a segment of the population that has traditionally faced discrimination in both the public and private sectors.[2]

The composition of the tax base is measured by the proportion of total property tax revenues coming from commercial and industrial property. As the proportion from business property increases, respondents are more likely to support the tax limitation measure. This may reflect respondents' beliefs that business does not pay its fair share of taxes.

Demographic and Household Characteristics

In most cases, the relationships between the demographic variables and voting behavior that emerge from the multivariate equations resemble the results from the cross-tabular analysis: with only a few exceptions, controlling for municipal characteristics and political attitudes thus does not alter the relationships shown in Table I.

Women, non-whites and Jews were again significantly more likely to oppose Proposition 2 1/2 than men, whites and members of other religious groups. Stage in the lifecycle exhibits little relationship to voting behavior in the multivariate model, however, with the one exception that elderly respondents were the group most likely to support Proposition 2 1/2. Thus, many of the differences in voting behavior across life-cycle categories that were noted earlier

---

[1] In "Why Voters Support Tax Limitations: Evidence from Massachusetts' Proposition 2 1/2," Ladd and Wilson found that belief that the poor were benefiting at the respondent's expense was weakly associated with an increased likelihood of voting "yes," while belief that minorities were benefiting at his or her expense was associated with an increased likelihood of voting "no."

[2] Non-white households tend to be clustered primarily in the cities. It might be argued that residents of more racially heterogeneous communities are more liberal and therefore that the measure of racial heterogeneity is really a proxy for community political ideology. The findings reported here, however, are the effects on voting after controlling for political orientation and ideology.

apparently reflect differences in such characteristics as income, education, tenure and attitudes toward government.

The likelihood of voting "no" on Proposition 2 1/2 increases as the respondent's educational attainment increases. This pattern is similar to that observed in the cross-tabular analysis and suggests that those with more education view the tax and spending situation as highly complex and therefore are less likely to expect the measure to offer a simple solution to the problem of high property taxes.

Household income displays the same relationship to the vote in both the multivariate and cross-tabular analyses: support for Proposition 2 1/2 generally increased with household income. Households in the lowest income category (under $10,000) were significantly less likely than those in the highest income categories ($30,000 or more) to support the measure. This result apparently reflects the fact that lower income households have fewer resources and are more dependent on public services.

Occupation of the household head continues to influence respondents' voting behavior in the predicted direction, even after controlling for income and education differences. Respondents from households headed by managers and service workers were both about nine percentage points more likely to support Proposition 2 1/2 than those from households headed by blue-collar workers. Respondents in clerical and sales households fell between the two extremes, while those in professional households tended to respond similarly to those in blue-collar households. In addition, respondents in households with a member working in the local school system or local government were significantly more likely than others to oppose the tax limiation measure. This result presumably reflects the fact that these respondents expected their households to experience layoffs or changing job conditions from passage of Proposition 2 1/2.

The importance of anticipated tax reductions is evident in the finding that renters were less likely than homeowners to support

Proposition 2 1/2, even after controlling for other demographic and municipal characteristics. Renters who have never owned and had no immediate plans to own were significantly less likely than owners to vote "yes." Among owners, the probability of supporting Proposition 2 1/2 is seven percentage points greater among respondents in the highest tax share group (125 percent or more than city average) than in the lowest tax share group (75 percent or less than average). The middle two tax share groups, however, do not exhibit the expected pattern.

Current or potential service usage generally decreases the probability of supporting Proposition 2 1/2; their independent influence, however, is statistically significant only in the case of after-school or recreation services. The fact that users of after-school programs were significantly more likely than non-users to vote "no" probably reflects the attention focused on cuts in these programs by the anti-Proposition 2 1/2 groups during the campaign. The equation provides no support for the conclusion that households with children attending public school are less likely to support Proposition 2 1/2 than other households, all other variables held constant.[1]

Political Ideology and Attitudes Toward the Government

Respondents were asked to describe themselves politically. The results of the equation indicate that those claiming to be liberal were 11 percentage points less likely to support the measure than those claiming to be middle-of-the-roaders. Somewhat surprisingly, however, those claiming to be conservative did not differ from the middle-of-the-roaders in their support for Proposition 2 1/2.

---

[1]Because the use of services provided to children and the lifecycle stage of school-age children may be highly correlated, alternative equations were estimated eliminating each set of variables. The results remain the same: neither public service usage nor the presence of school-age children appear to influence the probability of a "yes" vote.

The equation also includes measures of attitudes about the appropriate scope of government vis-a-vis individuals and about recipients of one particularly controversial government service, i.e., welfare and income support programs. Attitudes toward the appropriate scope of government are entered in the equation as a dummy variable created from a cluster formed from two of the attitude statements discussed above: "People expect too many services from the government," and "The government should make sure that each family has enough to live on."[1] As the data in Table III show, those who believe the government should be less involved in supporting people were 10 percentage points more likely to support Proposition 2 1/2; those who believe "welfare recipients could find jobs if they really tried" were 12 percentage points more likely to support the tax limitation measure.

III. SUMMARY AND CONCLUSIONS

Survey information has also been used to determine who supported tax limitation measures in California and Michigan.[2] California's Proposition 13, like Massachusetts' Proposition 2 1/2, reduced local property taxes and capped their rate of growth; Michigan's Headlee Amendment, in contrast, primarily limited the growth of state government revenues. At the time of the tax limitation vote, California enjoyed a substantial state surplus; Michigan and Massachusetts did not. Compared to the other states, Massachusetts relied more heavily on property taxes to finance local services. Moreover, California was in the midst of a housing market boom while Michigan was suffering from high unemployment caused by the depressed automobile market. Despite these major differences in the form of the limitation measures and in the states' fiscal and economic climates, the studies show that similar types of people supported tax limitation.

---

[1] Factor analytic techniques were used to cluster these attitude items. Scores from the latter statement were reversed to make them consistent with those from the former.

[2] See Citrin, 1979 and Courant et al., 1981.

Table IV compares the findings from the California and Michigan studies with the results for Massachusetts. For Massachusetts and Michigan, the equations are linear probability models; for California, the equation is a probit model. Only the Massachusetts equation includes municipal characteristics.

When the studies include similar variables, the relationships between the variables and support for the specific limitations are the same. For example, support for tax limitation was strongest among men, whites, less well-educated respondents, older respondents, homeowners, conservatives and non-Democrats; opposition was strongest among households with state or local public sector employees. All three studies show that higher-income voters were more likely than middle-income voters to support tax limitation. The behavior of low-income respondents, however, varies somewhat across states either because of differences in model specification or because of actual differences in behavior. The finding that low-income households were the most likely of all income groups to support the tax limitation measure in Michigan could thus reflect the absence of an educational background variable from the model. The similarity of results for the demographic and ideology variables across studies indicates a certain commonality to the tax revolt, suggesting that the findings can be generalized from one state to another.

This study of Proposition 2 1/2 clearly indicates that household heads voted in their apparent economic self-interest. The vote does not, however, reflect a major social cleavage between those who had a lot to gain and those who had a lot to lose if the measure passed. Each respondent is defined by many demographic characteristics that influence voting behavior. Some characteristics associated with support are positively correlated with others associated with opposition to the measure: high income, for example, contributes to a greater likelihood of voting "yes" on Proposition 2 1/2 while high educational attainment contributes to a greater likelihood of voting "no." As Chart I demonstrates, few voters possess the unique combination of demographic characteristics that would imply total

Table IV

COMPARISONS OF FINDINGS IN STUDIES
OF SUPPORT FOR TAX LIMITATIONS IN THREE STATES[a]

	Massachusetts: Proposition 2 1/2[b]	California Proposition 13[c]	Michigan: Headlee Amendment[d]
DEMOGRAPHIC CHARACTERISTICS			
Sex	Women less likely to support	NI	Women less likely to support
Race	Non-whites less likely to support	Blacks less likely to support	Blacks less likely to support
Religion	Jews less likely to support	NI	NI
Life-cycle stage/age	No effect at younger ages, but older are more likely to support	No effect, but entered as continuous variable	No effect, but older are somewhat more likely to support
Service usage	After school program users and welfare recipients less likely to support	NI	Public school users and transfer recipients less likely to support
Education	More educated less likely to support	More educated less likely to support	NI
Household income	High income more likely than middle income to support	Higher income and lowest income more likely than middle income to support	High income and low income more likely than middle income to support
Occupation	Managers and service workers most likely to support	NI	NI
Unemployed	NI	NI	Less likely to support
Public employee in household	Less likely to support	NI	Less likely to support
Renters	Less likely to support	Less likely to support	Less likely to support
Tax share of owners	Mixed relationship	NI	NI
ATTITUDES			
Political ideology	Conservatives more likely to support	Conservatives more likely to support	NI
Scope of government	Believers that govt. should limit its scope, more likely to support	NI	NI
Attitudes to welfare recipients	Believers that welfare recipients could work more likely to support	NI	NI
Party registration	NI	Democrats less likely to support	Democrats less likely to support

Table IV (continued)

COMPARISONS OF FINDINGS IN STUDIES
OF SUPPORT FOR TAX LIMITATIONS IN THREE STATES[a]

	Massachusetts: Proposition 2 1/2[b]	California Proposition 13[c]	Michigan: Headlee Amendment[d]
MUNICIPAL CHARACTERISTICS			
Anticipated revenue loss	Higher revenue loss, more likely to support	NI	NI
Pre-limitation tax rate	Higher rate, less likely to support	NI	NI
Spending levels	Higher per capita non-education spending more likely to support	NI	NI
Population diversity	Higher percentage non-white, less likely to support	NI	NI
Tax base diversity	Higher percentage commercial and industrial, less likely to support	NI	NI

NI = Not included.

[a]All findings are based on multivariate techniques and thus estimate the relationship between any one variable and support for the tax limitation measure controlling for all other variables included in the equation.

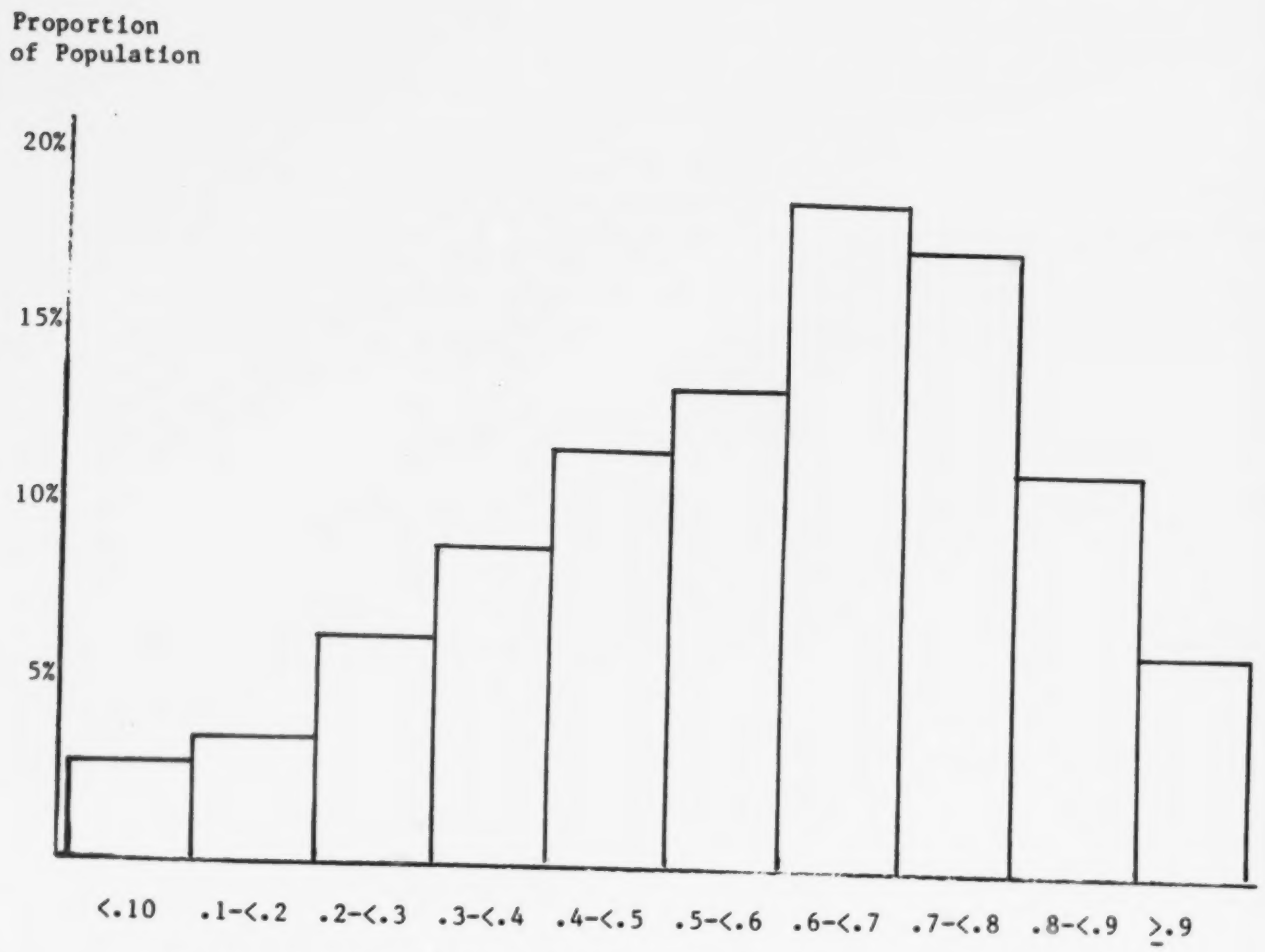
[b]Proposition 2 1/2 limited local property tax rates to 2 1/2% of fair market value and limited the growth of property tax levies to 2 1/2%.

[c]Based on Jack Citrin, "Do People Want Something for Nothing: Public Opinion on Taxes and Government Spending", National Tax Journal, Vol. XXXII, No. 2, Supplement, June 1979, pp. 113-129. Proposition 13 reduced local property tax rates and limited the growth of assessments.

[d]Based on Paul M. Courant, et al., "Why Voters Support Tax Limitation Amendments: The Michigan Case", in Helen F. Ladd and T. Nicolaus Tideman (eds.), Tax and Expenditure Limitations, Washington, D.C.: The Urban Institute Press, 1981, pp. 37-72. The Headlee Amendment limited the growth of state revenues.

CHART I

PREDICTED PROBABILITY OF VOTING "YES" ON PROPOSITION 2 1/2[a]



[a]Predictions based on equation reported in the text.

support or opposition; most have a combination of demographic characteristics that imply offsetting impacts on the probability of support for the tax limitation measure.

The study also shows that political ideology and attitudes about the appropriate scope of government influence voting behavior, even after controlling for demographic characteristics. Otherwise similar people may thus vote differently if they have different political orientations. While these attitudes are somewhat correlated with personal characteristics, the fact that political orientations differ among otherwise similar household heads dilutes the influence of the demographic characteristics and provides further support for the assertion that the election was not simply a victory for the "haves" over the "have-nots."

Finally, the Massachusetts study indicates that community characteristics influenced the vote. Two household heads sharing the same demographic characteristics and holding similar beliefs about the appropriate role of government may have different probabilities of supporting tax limitation depending on their residence. Respondents in high tax rate communities, who had the most to lose in the way of services from Proposition 2 1/2, were less likely to support the measure than residents in low tax rate communities. To the extent a state is as balkanized as Massachusetts, a favorable vote for tax limitation may thus be a way for the better-off communities to benefit at the expense of those that are less well off. Where tax limitations have smaller differential effects, however, variation in community characteristics may be a less important influence on the vote.

REFERENCES

John Avault, Alex Ganz and Daniel Holland, "Tax Relief and Tax Reform in Massachusetts", National Tax Journal, Supplement, June 1979.

Katharine L. Bradbury and Helen F. Ladd, with Claire Christopherson, "Proposition 2 1/2: Initial Impacts", forthcoming in New England Economic Review and as a Policy Paper of the Institute for Research in Educational Finance and Governance, Stanford, California.

Paul N. Courant, Edward M. Gramlich and Daniel L. Rubinfeld, "Why Voters Support Tax Limitation Amendments: The Michigan Case", National Tax Journal, March 1980 and in Helen F. Ladd and T. Nicolaus Tideman, Tax and Expenditure Limitations (Washington, D.C.: Urban Institute, 1981).

William H. Oakland, "Discussion of Paper by Courant, Gramlich and Rubinfeld" in Helen F. Ladd and T. Nicolaus Tideman, Tax and Expenditure Limitations (Washington, D.C.: Urban Institute, 1981).

APPENDIX A

STATISTICAL SIGNIFICANCE OF PERCENTAGE DIFFERENCES

STATISTICAL SIGNIFICANCE OF PERCENTAGE DIFFERENCES

Table A-I is a guide for determining the significance (two standard errors) of differences in percentages between any two subgroups in the overall sample. The size of the difference necessary for significance decreases as the sample sizes increase and as the percentages being compared move away from 50 percent in either direction. Thus, a separate table is presented for each of four sets of percentages. The entries in each cell define the range of necessary differences for samples of varying sizes. The lower number is the difference required for significance between two simple random samples. The higher number, 1.25 times the lower number, is a conservative estimate of the difference required for significance when other sample designs are used.

A stratified random cluster sample plan was used in this study. Stratification reduces the size of the standard errors relative to those in simple random samples; clustering increases the size of the standard errors. Because the sampling plan incorporated a large number of clusters (65) with a small number of interviews in each cluster (15 to 25), any increase in standard errors due to clustering should be minor and more than offset by the decreases gained through stratification. Thus the entries at the lower end of each scale represent conservative estimates of the difference in percentages required for significance between any two subgroups in this study.

The sizes of the subgroups analyzed in this paper are presented in Tables I and II in the text.

Table A-I

EXAMPLE OF SAMPLING ERRORS OF DIFFERENCES BETWEEN PERCENTAGES[1]

No. of Interviews	No. of Interviews							
	2000	1000	700	500	400	300	200	100
For Percentages from 35 to 65								
2000	3.2–4.0	3.9–4.9	4.4–5.5	5.0–6.2	5.5–6.9	6.2–7.8	7.4–9.2	10–12
1000		4.5–5.6	4.9–6.1	5.5–6.9	5.9–7.4	6.6–8.3	7.7–9.6	10–13
700			5.3–6.6	5.9–7.4	6.3–7.9	6.9–8.6	8.0–10	11–13
500				6.3–7.9	6.7–8.4	7.3–9.1	8.4–10	11–13
400					7.1–8.9	7.6–9.5	8.7–11	11–14
300						8.2–10	9.1–11	12–14
200							10–12	12–15
100								14–17
For Percentages around 20 and 80								
2000	2.5–3.1	3.1–3.9	3.5–4.4	4.0–5.0	4.4–5.5	5.0–6.2	5.9–7.4	8.2–9.8
1000		3.6–4.5	3.9–4.9	4.4–5.5	4.7–5.9	5.3–6.6	6.2–7.8	8.4–10
700			4.3–5.4	4.7–5.9	5.0–6.2	5.5–6.9	6.4–8.0	8.6–10
500				5.1–6.4	5.4–6.8	5.8–7.2	6.7–8.4	8.8–11
400					5.7–7.1	6.1–7.6	6.9–8.6	9.0–11
300						6.5–8.1	7.3–9.1	9.2–11
200							8.0–10	9.8–12
100								11–14
For Percentages around 10 and 90								
2000	1.9–2.4	2.3–2.9	2.6–3.2	3.0–3.8	3.3–4.1	3.7–4.6	4.4–5.5	
1000		2.7–3.4	3.0–3.8	3.3–4.1	3.6–4.5	4.0–5.0	4.6–5.8	
700			3.2–4.0	3.5–4.4	3.8–4.8	4.1–5.1	4.8–6.0	
500				3.8–4.8	4.0–5.0	4.4–5.5	5.0–6.2	
400					4.2–5.2	4.6–5.8	5.2–6.9	
300						4.9–6.1	5.5–6.9	
200							6.0–7.5	
For Percentages around 5 and 95								
2000	1.4–1.8	1.7–2.1	1.9–2.4	2.2–2.8	2.4–3.0	2.7–3.4		
1000		1.9–2.4	2.1–2.6	2.4–3.0	2.6–3.2	2.9–3.6		
700			2.3–2.9	2.6–3.2	2.7–3.4	3.0–3.8		
500				2.8–3.5	2.9–3.6	3.2–4.0		
400					3.1–3.9	3.3–4.1		
300						3.6–4.5		

TABLE 14.1.III Example of Sampling Errors of Differences between Percentages

The values shown are the differences required for significance (two standard errors) in comparisons of percentages derived from *two different subgroups* of the survey. Two values—low and high—are given for each cell.

These generalized and approximate values of $2\,se\,(p - p')$ represent the results of many computations. The low values are merely $2[PQ(1/n + 1/n')]^{1/2}$, corresponding to two simple random samples. The high values are about 1.25 greater. Most of the actually computed values of the standard error fell between these two boundaries. (*Source:* Freedman, Whelpton, and Campbell [1959].)

[1] Leslie Kish, Survey Sampling. New York: John Wiley and Sons, Inc., 1965, p. 580.